

What is claimed is:

1 1. A gas drier comprising:
2 an igniter, connected to a first terminal providing a power signal with respect to a
3 neutral terminal, for initiating a flame;
4 a normally closed flame detection switch, connected between said igniter and the
5 neutral terminal to receive the power signal via said igniter, for detecting a presence of the
6 initiated flame by opening; and
7 a sustaining relay for providing an alternative path of conduction with respect to said
8 flame detection switch.

1 2. A gas drier comprising:
2 an igniter having a first terminal connected to a power supply terminal to ignite a gas;
3 a flame detection switch having a first terminal connected to a second terminal of said
4 igniter, to maintain a closed state at a normal operating state time, said flame detection switch
5 being a normally closed type switch that is opened when a flame of the igniter is detected;
6 a thermostat switch having one terminal connected to a second terminal of said flame
7 detection switch, to maintain a closed state at a normal operating state, said thermostat switch
8 being a normally closed type switch that is opened by a detection of a state of overheating;
9 a first valve coil having one end grounded;
10 a second valve coil having one end connected to the first terminal of said flame
11 detection switch;
12 a sustaining relay comprising:
13 an operating coil having one end connected to the other end of said first valve

14 coil and the other end grounded; and
15 a pair of contacts respectively connected across said flame detection switch;
16 and
17 a rectifier bridge having an output terminal tied in common to said first and second
18 valve coils and the operating coil of said sustaining relay and a pair of input terminals
19 respectively connected to said sustaining relay and the first terminal of said flame detection
20 switch.

1 3. The apparatus as claimed in claim 2, wherein the contacts of the sustaining
2 relay maintain an open state at the normal operating state and are switched to a closed state
3 when power from said rectifier bridge is applied to the operating coil.